UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/650,138	08/29/2000	Shigetoshi Sameshima	10721-4US	8314

20457	7590	11/13/2003

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER
LAZARO, DAVID R

ART UNIT	PAPER NUMBER
2155	11

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _20 August 2002_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-18_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-18_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _29 August 2000_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
    since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
    37 CFR 1.78.

    a)☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
    reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____.

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _7_.   6)☐ Other: .

DETAILED ACTION

Claims 1-18 are pending in this office action.

Priority

1.   Receipt is acknowledged of papers (JAPAN 11-322115) submitted under 35

U.S.C. 119(a)-(d), which papers have been placed of record in the file. Received

8/29/00.

Papers Received

2.   Fax regarding Oath/Declaration received 3/12/02.

3.   Request for Corrected Filing Receipt received on 3/14/02.

4.   Change of Address was received on 03/06/02.

5.   Revocation of Prior Powers received on 8/20/02.

6.

Information Disclosure Statement

7.   The information disclosure statement (IDS) submitted on 08/29/00 has been

considered by the examiner. The article "Java Intelligent Network Infrastructure" was

not in conformance as no translation was provided.

Drawings

8.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4)

because reference character "1703" has been used to designate both 'house' and

'room'. A proposed drawing correction or corrected drawings are required in reply to the

Office action to avoid abandonment of the application. The objection to the drawings

will not be held in abeyance.

Claim Rejections - 35 USC § 112

9.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

10.   Claims 2, 6, 8, 12, 14 and 18 rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

11.   Claims 2 and 8 recite the limitation "pieces of information obtained by said

arbitrary device". There is insufficient antecedent basis for this limitation in the claim.

12.   Claim 14 recites the limitation "pieces of information obtained by the device".

There is insufficient antecedent basis for this limitation in the claim.

13.   Claims 6, 12, and 18 recite the limitation "changing of conditions of said

operation". There is insufficient antecedent basis for this limitation in the claim. The

"conditions" where not distinctly claimed and therefore indefinite. The "said operation" is

also indefinite as it is not explicitly clear if it is in reference to the "determined process".

The examiner will interpret the "changing of conditions of said operation" to be a change

in any previously claimed information or processing state/condition (such as described

on pages 3 and 31-38 of specification) related directly or indirectly to the "determined

process".

Claim Rejections - 35 USC § 102

14.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15.   Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by "The

Contract Net Protocol: High-Level Communication and Control in a Distributed Problem

Solver" by Reid G. Smith (Smith).

16.   With respect to Claim 1, Smith teaches an inter-device cooperative control

method wherein each of a plurality of devices having a communication function

communicates with another device (Page 2, Col. 1 paragraph 4) said inter-device

cooperative control method comprising the steps of: providing each of said plurality of

devices with functional information including at least one of information on a function

possessed by a device and information on a function to be performed on the device

(Page 2, Col. 2 paragraph 5 and Page 4, Col. 2 paragraph 3) , environmental

information on the environment in which the device is located (Page 2, Col. 2 paragraph

5) and status information which indicates the progress of at least one of a process

performed by the device and a process performed on the device (Page 5, Col. 1

paragraph 4); obtaining information on a process to be performed by said plurality of

devices or information on a process to be performed on said plurality of devices, this

information obtaining step being performed by an arbitrary one of said plurality of

devices (Page 3, Col. 1 paragraph 4 'Task Announcements'); and determining a

process to be performed by said plurality of devices or a process to be performed on said plurality of devices based on said obtained information and said functional information, said environmental information, and said status information, this process determining step being performed by said arbitrary device (Page 4, 'Bidding' and 'Bid Processing').

17.   With respect to Claim 2, Smith teaches all the limitations of Claim 1 and further teaches wherein pieces of information obtained by said arbitrary device are functional information (Page 4, Col. 2 paragraph 3), environmental information (Page 2, Col. 2 paragraph 5), and status information on said plurality of devices (Page 5, Col. 1 paragraph 4).

18.   With respect to Claim 3, Smith teaches all the limitations of Claim 1 and further teaches wherein information obtained by said arbitrary device is a request for a process to be performed by said plurality of devices or a process to be performed on said plurality of devices (Page 3 'Task Announcement').

19.   With respect to Claim 4, Smith teaches all the limitations of Claim 1 and further teaches wherein said environmental information includes position information indicating a position of a device (Page 3, see Fig. 1-3).

20.   With respect to Claim 5, Smith teaches all the limitations of Claim 4 and further teaches wherein said position information includes at least one of an absolute position of the device, a relative position of the device to another device, and a distance obtained based on a route which can be used by the device (Page 3, see Fig. 1-3 and Page 2, Col. 2 paragraph 5 and 6).

21.   With respect to Claim 6, Smith teaches all the limitations of Claim 1 and further

teaches wherein said plurality of devices operate to perform a predetermined process,

said predetermined process including changing of conditions of said operation (Page 7

Col. 2 last paragraph and first two lines Page 8).

22.   It must be noted that Claim 6 has been rejected under 35 U.S.C. 112 2nd

paragraph under the pretense that "changing of conditions of said operation" is

indefinite. Therefore, in this 35 U.S.C. 102(b) rejection, "changing of conditions of said

operation" is being understood to mean a failure in a node that was previously awarded

a task as part of an overall operation (Page 7 last paragraph, lines 4-7). The operation

adapts to this "changing of conditions" by recovering from the failure in order to continue

performing the predetermined process (Page 8, lines 1-2). This meaning was

determined from the Application's Specification referring to a change in a processing

condition or responsiveness (Page 31 lines 5-9).

23.   With respect to Claim 7, Smith teaches an inter-device cooperative control

system composed of a plurality of devices having a communication function, each of

said plurality of devices communicating with another device (Page 2, Col. 1 paragraph

4), said inter-device cooperative control system comprising: storage means for storing

functional information including at least one of information on a function possessed by a

device and information on a function to be performed on the device (Page 2, Col. 2

paragraph 5 and Page 4, Col. 2 paragraph 3), environmental information on the

environment in which the device is located (Page 2, Col. 2 paragraph 5), and status

information which indicates the progress of at least one of a process performed by the

device and a process performed on the device (Page 5, Col. 1 paragraph 4), said

storage means being owned by each of said plurality of devices (This is inherent since

each device can act as either the device requesting a process or acting on a request.

See Page 2, Col. 1 paragraph 4); means for obtaining information on a process to be

performed by said plurality of devices or information on a process to be performed on

said plurality of devices (Page 3, 'Task Announcements'), said obtaining of information

being performed by an arbitrary one of said plurality of devices (Page 2, Col. 1

paragraph 4); and means for determining a process to be performed by said plurality of

devices or a process to be performed on said plurality of devices based on information

obtained by said arbitrary device and functional information, environmental information,

and status information each possessed by said arbitrary device (Page 4, 'Bidding' and

'Bid Processing').

24.   With respect to Claim 8, Smith teaches all the limitations of Claim 7 and further

teaches wherein pieces of information obtained by said arbitrary device are functional

information (Page 4, Col. 2 paragraph 3), environmental information (Page 2, Col. 2

paragraph 5), and status information on said plurality of devices (Page 5, Col. 1

paragraph 4).

25.   With respect to Claim 9, Smith teaches all the limitations of Claim 7 and further

teaches wherein information obtained by said arbitrary device is a request for a process

to be performed by said plurality of devices or a process to be performed on said

plurality of devices (Page 3 'Task Announcements').

26.   With respect to Claim 10, Smith teaches all the limitations of Claim 7 and further

teaches wherein said environmental information includes position information indicating

a position of a device (Page 3, see Fig. 1-3).

27.   With respect to Claim 11, Smith teaches all the limitations of Claim 10 and further

teaches wherein said position information includes at least one of an absolute position

of the device, a relative position of the device to another device, and a distance

obtained based on a route which can be used by the device (Page 3, see Fig. 1-3 and

Page 2, Col. 2 paragraph 5 and 6).

28.   With respect to Claim 12, Smith teaches all the limitations of Claim 7 and further

teaches wherein said plurality of devices operate to perform a predetermined process,

said predetermined process including changing of conditions of said operation (Page 7

Col. 2 last paragraph and first two lines Page 8).

29.   It must be noted that Claim 12 has been rejected under 35 U.S.C. 112 2nd

paragraph under the pretense that "changing of conditions of said operation" is

indefinite. Therefore, in this 35 U.S.C. 102(b) rejection, "changing of conditions of said

operation" is being understood to mean a failure in a node that was previously awarded

a task as part of an overall operation (Page 7 last paragraph, lines 4-7). The operation

adapts to this "changing of conditions" by recovering from the failure in order to continue

performing the predetermined process (Page 8, lines 1-2). This meaning was

determined from the Application's Specification referring to a change in a processing

condition or responsiveness (Page 31 lines 5-9).

30.   With respect to Claim 13, Smith teaches a device employed in an inter-device

cooperative control system in which a plurality of devices communicate with one

another (Page 2, Col. 1 paragraph 4), said device comprising: storage means for storing

functional information including at least one of information on a function possessed by a

device and information on a function to be performed on the device (Page 2, Col. 2

paragraph 5 and Page 4, Col. 2 paragraph 3), environmental information on the

environment in which the device is located (Page 2, Col. 2 paragraph 5), and status

information which indicates the progress of at least one of a process performed by the

device and a process performed on the device (Page 5, Col. 1 paragraph 4), means for

obtaining information on a process to be performed by said plurality of devices or

information on a process to be performed on said plurality of devices (Page 3, 'Task

Announcements'), and means for determining a process to be performed by said

plurality of devices or a process to be performed on said plurality of devices based on

information obtained by other devices and functional information, environmental

information, and status information each possessed by the device (Page 4, 'Bidding'

and 'Bid Processing').

31.   With respect to Claim 14, Smith teaches all the limitations of Claim 13 and further

teaches wherein pieces of information obtained by the device are functional information

(Page 4, Col. 2 paragraph 3), environmental information (Page 2, Col. 2 paragraph 5),

and status information on said plurality of devices (Page 5, Col. 1 paragraph 4).

32.   With respect to Claim 15, Smith teaches all the limitations of Claim 13 and further

teaches wherein information obtained by said other devices is a request for a process to

be performed by said plurality of devices or a process to be performed on said plurality

of devices (Page 3 'Task Announcements').

33.   With respect to Claim 16, Smith teaches all the limitations of Claim 13 and further

teaches wherein said environmental information includes position information indicating

a position of a device (Page 3, see Fig. 1-3).

34.   With respect to Claim 17, Smith teaches all the limitations of Claim 16 and further

teaches wherein said position information includes at least one of an absolute position

of the device, a relative position of the device to another device, and a distance

obtained based on a route which can be used by the device (Page 3, see Fig. 1-3 and

Page 2, Col. 2 paragraph 5 and 6).

35.   With respect to Claim 18, Smith teaches all the limitations of Claim 13 and further

teaches wherein said plurality of devices operate to perform a predetermined process,

said predetermined process including changing of conditions of said operation (Page 7

Col. 2 last paragraph and first two lines Page 8).

36.   It must be noted that Claim 18 has been rejected under 35 U.S.C. 112 2nd

paragraph under the pretense that "changing of conditions of said operation" is

indefinite. Therefore, in this 35 U.S.C. 102(b) rejection, "changing of conditions of said

operation" is being understood to mean a failure in a node that was previously awarded

a task as part of an overall operation (Page 7 last paragraph, lines 4-7). The operation

adapts to this "changing of conditions" (Page 7 last paragraph lines 1-4) by recovering

from the failure in order to continue performing the predetermined process (Page 8,

lines 1-2). This understanding of "changing of conditions of said operation" was

determined from the Application's Specification referring to a change in a processing

condition or responsiveness (Page 31 lines 5-9).

Conclusion

37.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

38.   U.S. Patent 6,414,955 by Clare et al. "Distributed Topology Learning Method and

Apparatus for Wireless Networks" July 2, 2002

39.   U.S. Patent 6,374,306 by Tognazzini "System using Position Detector to

Determine Location and Orientation Between Computers to Select Information to be

Transferred via Wireless Medium" April 16, 2002

40.   U.S. Patent 6,073,176 by Baindur "Dynamic Bidding Protocol for Conducting

Multilink Sessions Through Different Physical Termination Points" June 6, 2000

41.   U.S. Patent 6,029,188 by Uyama "Information Processing System for an

Architecture Model Capable of Interfacing with Humans and Capable of Being Modified"

Febraury 22, 2000

42.   Bestavros et al. "Probabilistic job scheduling for distributed real-time

applications" In Proceedings of the First IEEE Workshop on Real-Time Applications, pp.

97-101. May 1993

43.   Fischer et al. "A Model for Cooperative Transportation Scheduling". In

Proceedings of the First International Conference on MultiAgent Systems, AAAI

Press/MIT Press, San Francisco, California, pp. 109-116. 1995

44.   Lin et al. "An Agent-based Flexible Routing Manufacturing Control Simulation

System" Proceedings of the 26th conference on Winter simulation, pp. 970-977 1994

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David Lazaro whose telephone number is 703-305-

4868. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

3900.

David Lazaro
November 7, 2003

HOSAIN ALAM
ADVISORY PATENT EXAMINER